

IN THE SPECIFICATION

Page 6, line 14 through page 7, line 20 have been amended as follows:

Suitable provisions are provided to allow the balls 16 to progressively get closer and closer to the center of the friction collar. According to the preferred teachings of the present invention, the shape of the tracks 22 and width of the tracks 22 are designed to widen in either the first direction or second direction to permit the balls 16 to lay closer and closer to the center of the friction collar 12 as they are positioned along the selected direction. This gradual shape change and widening forms a ball ramp that resembles, generally, a conic, because the balls are all of the same diameter, allowing the balls 16 in the widest parts of the tracks 22 to contact the rod 14 first. The second direction opposes the first direction. The first plurality of slits 32 and the second plurality of slits 33 provide ease of deflection of the friction collar 12. The friction collar 12 is designed to engage the rod 14 and to apply an engaging force to the rod 14 in response to force transmitted through balls 16 from the piston 18. The engagement of the rod 14 can be gradual to a full stopping or locking of the rod 14 or the engagement of the rod 14 can be partial, applying only enough force to the rod 14 to slow it, but not stop or lock it. The balls 16 are retained in the tracks 22 in the friction collar 12 in a radial plane extending in the axial direction between the friction collar 12 and the piston 18 and in the axial direction by an adjacent ball 16, by a retaining ring 20 in the inside surface 50 of the piston 18 at one axial end or by a shoulder of the housing 26 against which the friction collar 12 abuts at the other axial end. Since the tracks 22 in the friction collar 12 are linear and align the balls 16 generally along the axial direction, the friction collar 12 deflects in response to a shift in position of the piston 18 due to concerted action by the balls 16. The piston 18, actuated by the wave spring 56 ~~[[and]]~~ **or by** fluid pressure in the first chamber 63, drives, in a first engaging direction and then in a second freeing direction, the balls 16 down into the friction collar 12 whereby the friction collar 12 grabs the rod 14, and slows and/or stops it or locks it, or relieves pressure and frees the rod 14, respectively. This operation is helped by the cone shape of the inside surface 50 of the piston 18 cooperating with the cone shape configuration of the balls 16 in the tracks 22 on the outside surface 28 of the friction collar 12. The balls 16 further provide a mechanism to infinitely engage the rod 14 and transmit the force of retention from the piston 18 to the rod 14. The balls

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16 accomplish this by allowing the position of the piston 18 to continuously vary in relation to the friction collar 12 by rolling in the tracks 22 as the piston 18 is actuated, and since the inside surface 50 of the piston 18 has the shape of a cone and the outside surface of the balls 16 in the tracks 22 of the friction collar 12 has the shape of a cone, the friction collar 12 gradually, then firmly, engages the rod 14. When the rod motion controller 10A is in the engaged position, the friction collar 12 will backlash by an amount up to the space between the end cap 44 and the internal retaining ring 78, the space between the end cap 44 and the friction collar 12 and the space between the friction collar 12 and the housing 26, thus in turn, allowing the rod 14 to backlash unless restrained by the backlash reducer 88A, 88B or 88C of the present invention.